Thomas Bennett - trb090020
CS 4395.001 - UTD Spring '23
NLP Wrap Up

GitHub Page for my course repository: https://trb090020.github.io/NLP_Portfolio/

Hard skills
- NLP
  - Sentence parsing
  - N-grams
  - Morphological analysis
  - Semantics
  - Rules-based NLP techniques
  - ML-based NLP techniques
- Machine Learning using Keras Tensorflow and scikit-learn
  - Classification
  - Text to numeric data
  - Neural networks
- Python
  - Web scraping/crawling
  - Corpus generation
  - Dictionaries
  - Interactive scripts in the Python console
  - Interactive notebooks (Jupyter)

Soft skills
- Effective communication
  - In-class presentations
  - Dialogue with colleagues and instructor
- Time management
  - All assignments turned in early or on time.
- Analytical thinking/flexibility
  - Open-ended assignment structure provided the opportunity to make decisions about assignment tasks and deliverables

Summary of CS 4395, Human Language Technologies (NLP):

I can definitely see myself using NLP skills in my career. I have learned a lot about how to make programs able to understand user input even if the input is not exactly what the program expects. Users expect that software is 'intelligent' and able to understand the gist of what they are getting at even if they do not give precise inputs. I will also most certainly use the machine learning techniques I developed in this course in other tasks. I can see how computer vision and text classification tasks could be combined to give programs the ability to not only detect objects and text in an image, but to also provide deeper context as to what the image is. I plan to keep playing around with the chatbot I created for quote chaining, and I will definitely keep up with NLP development as it continues to mature and becomes ubiquitous throughout technology spaces.